

Blue Ribbon Task Force Delta Vision

A Vision for Durable Management of a Sustainable Delta

First, embryonic draft prepared by staff (September 11, 2007)

To be discussed at the Blue Ribbon Task Force meeting September 20-21, 2007

Please submit comments online to: dv_context@calwater.ca.gov

or by mail to:

Delta Vision draft
650 Capitol Mall, 5th Floor
Sacramento, CA 95814

Executive Order S-17-06 charges the Delta Vision Blue Ribbon Task Force with developing a vision for sustainable management of a durable Delta by January 1, 2008, and a strategic plan to implement that vision by October 2008. The full text of the EO and information about Delta Vision are available at: <http://www.deltavision.ca.gov/>

The Blue Ribbon Task Force will make its vision recommendation at its meeting November 29-30, 2007. Drafts will proceed through three rounds of public comment between meetings, public comment at Task Force meetings, analyses by experts, and discussion among members of the Blue Ribbon Task Force. Here are the steps:

- August 31 – Task Force directs staff to prepare first, embryonic, draft of their vision
- September 12 – first, embryonic draft prepared by staff released for public comment
- September 20-21 – Task Force meeting, with public comment, leading to direction to staff to prepare a revised draft
- October 18 – second draft released for public comment
- October 25-26 – Task Force meeting, with public comment, leading to preliminary decisions on parts of the vision and direction to the staff to prepare a revised draft
- November 22 – third draft released for public comment
- November 29-30 – Task Force meeting, with public comment, leading to final recommendation on vision and direction to staff regarding work plan for strategic plan to be completed by October 2008

Important information continues to be developed regarding critical issues and the Task Force will wait for that information when possible. On the critical issue of alternatives for conveyance of water out of the Delta, for example, important information will become available through November. Similarly, important information is developing on improving Delta ecosystem function.

After discussing near term actions suggested by the Stakeholder Coordination Group to begin to immediately improve conditions in the Delta at its August meeting, the Task Force asked the SCG to further develop this list. The Task Force anticipates recommending near term actions separately from its vision recommendation.

1 **Executive summary**

2
3 Our charge is to elaborate a durable vision for sustainable management of the Delta. A vision is
4 not a plan and does not entail a set of prescriptions with targets, timetables, analysis of alterna-
5 tives and costs. A vision represents our view of future conditions to which decision-makers must
6 aspire. These are conditions we see as desirable if not ideal, difficult to achieve but not impracti-
7 cal. The vision must result in a Delta that serves California for several generations.

8
9 Virtually every person who presented views to the Task Force echoed the premise of Executive
10 Order S-17-06 under which we work: the current condition and uses of the Delta are unsustain-
11 able. Rising sea levels will lead to intrusion of salt water further upriver in the Delta, altering the
12 ecology of fish and plants and contaminating waters withdrawn for diversion to agriculture and ur-
13 ban uses. Inevitable floods will inundate vast areas, overwhelm levees, destroy property and in-
14 frastructure and endanger lives in flood-prone areas. Less certain but potentially more catastro-
15 phic earthquakes could profoundly alter the physical geography of vast areas of the Delta, obliter-
16 ating settled areas with major flooding, destroying bridges, levees, roads, power transmission,
17 gas pipelines and buildings.

18
19 Our vision accepts the judgment that the current situation of the Delta is not sustainable. We rec-
20 ognize among all the uses that must be accommodated in planning for the future of the Delta two
21 overriding priorities – ecosystem protection and water provision.

22
23 By giving a priority to ecosystem protection we do not mean restoration to historic conditions that
24 prevailed prior to the alterations that humans have effected over the past two centuries. We mean
25 adapting patterns of construction and settlement to enhance the functioning of healthy natural sys-
26 tems to the extent practicable within a relatively mature and developed economy.

27
28 By assigning a priority to water provision we do not envision any increases in available supplies
29 for transport outside the Delta. To do so would compromise our priority for ecosystem protection.

30
31 For success over generations, our policies for ecosystem protection and water provision must be
32 designed not for one best solution, but for resiliency, for the capacity to recover from threats and
33 adapt to changes many of which we cannot now predict with accuracy. We must also develop
34 policies which respect and work with nature rather than seeking to bend nature to our engineering
35 designs. Resilient natural systems help to sustain resilient human systems. We should also re-
36 spect human aspirations and capacities and develop policies which mobilize the great energy of
37 Californians to act individually and in families, firms and non profit organizations rather than rely-
38 ing solely on state or federal governmental actions and regulations.

39
40 We must govern differently, integrating policy making for ecosystem protection and water provi-
41 sion, protecting the Delta as a place of international value and also of living communities, and
42 achieving needed changes in water delivery and use across all California. The Delta watershed is
43 critical to the future of California and changes in conveyance and storage are required but these
44 actions must occur as the ecosystem is protected and all California moves to a more efficient and
45 resilient water system. Changed institutions, policies, financing systems and distributions of liabili-
46 ties are required to move a fragmented system for decision making toward the vision proposed.

- 1 We need to shift from current conditions toward future conditions on the basis of new principles
 2 for policy making:
 3

<i>Current conditions</i>	<i>New Design Principles</i>	<i>Future conditions</i>
Delta as the critical hub in the infrastructure backbone of the CA water system	Design for resiliency in California and in Delta (ecosystem, water use, and flood management...)	Highly resilient California water system, built on regional self sufficiency, varied conveyance, improved storage (in ground and above ground), and effective ways to transfer water among uses and locations, with individual and provider incentives to use water efficiently.
Delta as a failing component of an estuary, with low productivity and declining species	Increase primary food production and overall ecosystem resilience by designing to enhance functioning as an estuary	Highly resilient Delta ecosystem, effectively functioning as an integral part of a unique estuary.
All uses completely dependent on marginal levees	Respect nature and work with nature to achieve desired goals	Levees remain important, but are designed, constructed and maintained to different standards for different uses requiring different levels of protection. Policy making should anticipate levee failures.
Managed primarily for water use, constrained by species protection laws. Levees for navigation and agriculture, un-linked to water management.	Respect humans and mobilize their energy to beneficial ends. Must integrate ecosystem, water supply/quality, and flood management.	California better manages dependence on Delta for water. Water from the Delta watershed will remain critical to California and reliable conveyance around or through the Delta will be important. But failure of any conveyance should not result in a major crisis.
Incentives to over use and abuse Delta (water use, agriculture policies, infrastructure routes, urbanization.)	Ecosystem function and water use are co-equal values in design and management of Delta and its watershed	Reduced risks to the Delta from human actions in and outside the Delta
Fragmented, weak governance	Sufficient authority, responsibility, and funding; effective integration across separate systems	Effective governance of water uses and water systems in California, of the Delta ecosystem, and of uses of all Delta resources

4

1 Part I--Introduction

2
3 The wealth of California is liquid—and most of it flows through the banks of two great rivers—
4 the Sacramento and the San Joaquin. Its largest deposit is in California’s Delta, the 1,315
5 square mile area near the center of the state that is a major wellspring of California’s economic
6 prosperity, is a one-of-a-kind ecological system, and is home to a unique regional culture that
7 dates back to before the Gold Rush. Executive Order S-17-06 directed Delta Vision to include
8 Suisun Bay and Suisun Marsh as elements of its vision and strategic plan because of their
9 close interrelationships to the Delta in the estuary.

10
11 California’s Delta is not a typical delta. Most deltas are a triangular landform intersected with
12 sloughs or canals at the mouth of a river that fans out and flows into a receiving body. Califor-
13 nia’s Delta is inverted, which means that is widest and fan-shaped more than 50 miles inland
14 from outflow to the Pacific and then narrows at Suisun Bay and Marsh before heading into San
15 Francisco Bay. It is the only inverted delta in the world. Figure 1 shows the maze of land forms
16 and waterways bounded by Sacramento, Stockton, and Tracy on the east which then narrows
17 toward Antioch and Suisun Bay as Delta waters flow toward San Francisco Bay and to the
18 Pacific.

19
20 California’s Delta is an integral part of the largest estuary on the west coast of North America
21 and South America, connecting rivers originating in the Sierra Nevada to the Pacific Ocean.
22 Estuaries are subject to tidal influence which mixes salt, brackish and fresh water at different
23 locations according to seasonal river flows and tides. This environment is essential to hun-
24 dreds of aquatic, bird, mammal and plant species including many California native species,
25 some of which are listed as threatened or endangered, such as the Delta smelt.

26
27 This mixture of unique land and water form, much of it human altered, is the history and the
28 challenge of California’s Delta. It was reclaimed from its original Tule wetlands into productive
29 farmland; its channels and sloughs became thoroughfares for trade, transportation and water
30 supply during the 19th and 20th centuries.

31
32 Now, in the 21st century, California’s Delta is a place in crisis, and vulnerable to any number of
33 threats. The 1,300 miles of levees, many initially constructed during the Gold Rush era, are the
34 fragile thread that strings together the Delta islands and
35 protects lives and livelihood, yet also are vulnerable to
36 earthquakes, sea level rise, or “sunny day” failures that
37 come with little or no warning. Precipitous declines in fish
38 populations have highlighted the rapid deteriorating eco-
39 system health of California’s Delta, once among the most
40 productive and diverse environments in North America
41 but today one of the least productive. Overuse of its re-
42 sources threatens the water quality and supply for mil-
43 lions of Californians. Figure 2 shows how the productivity
44 of Suisun Bay, already lower than three east coast estu-
45 aries twenty years ago because the estuary had been

*This is a draft vision of the independent
Delta Vision Blue Ribbon Task Force. A
vision is a picture of a hoped-for end re-
sult: what it would look like, how it will
function, and what it will produce.*

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1 transformed by levee construction and diversions, plummeted after arrival of an invasive clam
2 which feeds by filtering.

3
4 Recent events and studies have reaffirmed what many people believe: that the current mix of
5 uses, resources, and environmental conditions is unsustainable both in the short- and long-
6 term. Changing climatic, hydrologic, environmental, and land use conditions, coupled with
7 probabilities of seismic events, can jeopardize the Delta's natural and human-designed infra-
8 structure, with the potential to disrupt lives and livelihoods for years to come.

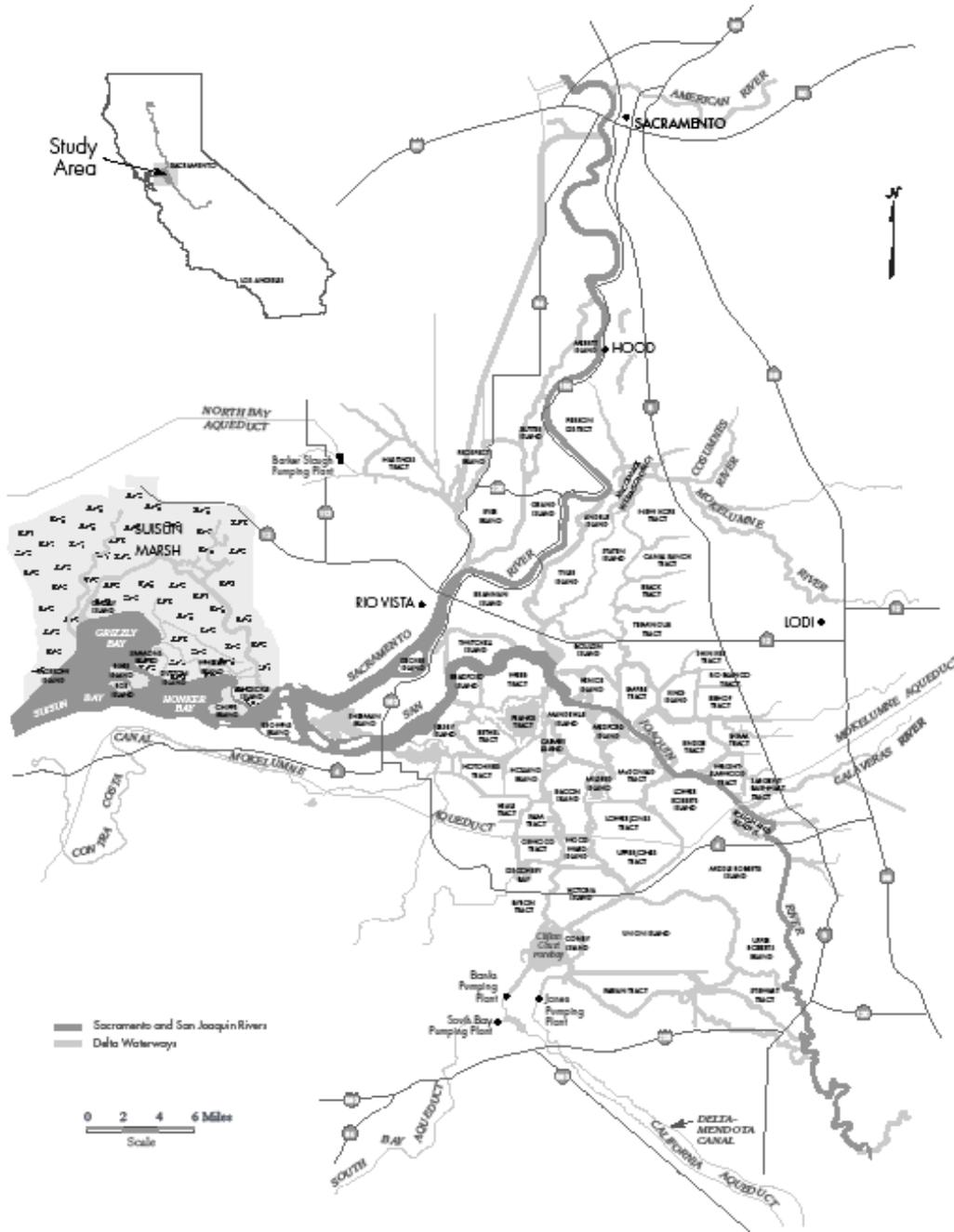
9
10 A more integrated assessment and strategic vision for California's Delta (which includes Sui-
11 sun Bay and Marsh) is needed, and to bring that about, Governor Arnold Schwarzenegger is-
12 sued Executive Order S-17-06, initiating the Delta Vision process and establishing an inde-
13 pendent Blue Ribbon Task Force to develop a durable vision for sustainable management of
14 California's Delta

15
16 One of the first products from the Blue Ribbon Task Force is the vision itself. A vision is a pic-
17 ture of a hoped-for end result: what it will look like, how it will function, and what it will produce.
18 Visions do not specify how to make the vision happen; in this process, that will occur during
19 2008 with the strategic plan. In this vision document, the Task Force presents a desired future
20 for California's Delta by defining the problems, clarifying the values and establishing policy pri-
21 orities for resources and actions.

22
23 The decisions and actions required to achieve the vision cannot all be known at this time as
24 there is too much uncertainty regarding the effects of actions and too high a likelihood of future
25 shocks to chart a precise course. Actions not now imaginable may become possible through
26 new technologies. This vision can be expected to evolve over several generations but its core
27 principles should endure to provide the foundation for durable management of a sustainable
28 Delta.

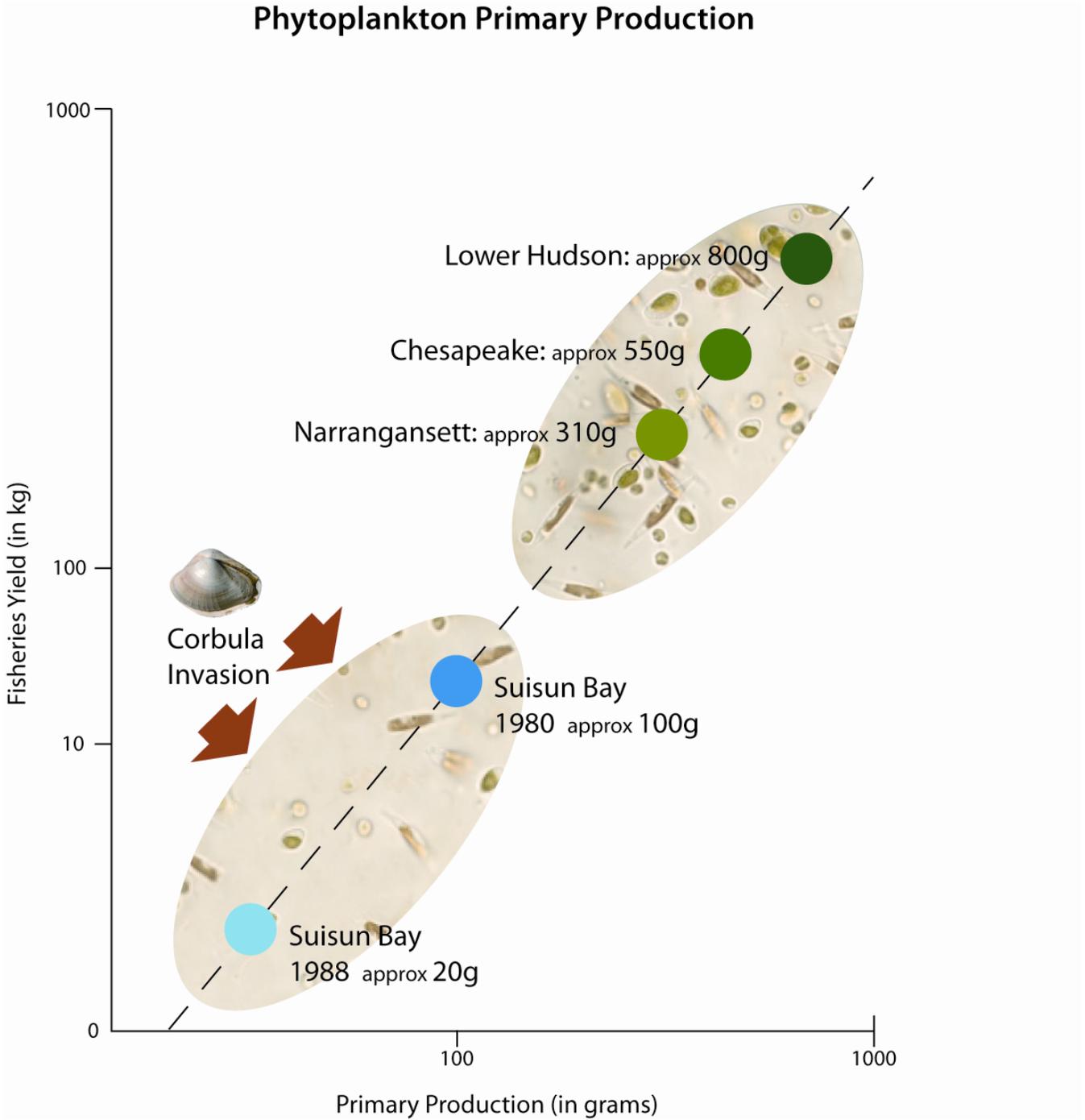
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Figure 1. The Delta is inverted, broader away from the ocean



5

1 .Figure 2. Primary food productivity plummets in Suisun Bay
2



3

1
2
3 **Part II—Delta Vision Process**
4

5 The governor's Executive Order S-17-06 recognized the value of California's Delta and risks to
6 its future. It formed the Delta Vision process to "develop a durable vision for sustainable man-
7 agement of the Delta" that can "restore and maintain identified functions and values that are
8 determined to be important to the environmental quality of the Delta and the economic and so-
9 cial well being of the people of the state."

10
11 Four groups, each with a distinct charge, were established under the executive order. The
12 seven-member independent Blue Ribbon Task Force is charged with developing the Delta Vi-
13 sion in 2007 and a strategic plan to carry out the Vision in 2008. In their previous eight days of
14 meetings, the Task Force members heard statements from scientists, stakeholders, govern-
15 ment officials and the general public to assist in forming their vision. The Task Force also re-
16 quested and received ideas and visions from the general public. Their next six days of meet-
17 ings will include more statements and work to refine their vision before submitting it to the gov-
18 ernor and the legislature.

19
20 The five-member Delta Vision Committee is chaired by the
21 Secretary for Resources; other members include the secretar-
22 ies for the California Environmental Protection Agency; the
23 Business, Transportation, and Housing Agency; the Depart-
24 ment of Food and Agriculture; and the president of the Public
25 Utilities Commission. These cabinet members are charged to
26 report to the governor about the Vision and strategic plan in
27 late 2008, and appoint the Stakeholder Coordination Group
28 and the Delta Vision Science Advisors.

The Delta Vision process coordinates with and builds upon many of the ongoing but separate Delta planning efforts. Among these are:

- The Bay-Delta Conservation Plan
- Delta Risk Management Strategy
- Delta Regional Ecosystem Restoration Implementation Plan
- Ecosystem Restoration Program's Conservation Strategy
- Suisun Marsh Plan

29
30 The 43-member Stakeholder Coordination Group consists of
31 representatives from all major interests using or living in Cali-
32 fornia's Delta. With dedication and understanding, these women and men had 13 days of
33 meetings to develop and refine nine principles, two emerging visions for California's Delta, and
34 a list of near term actions. These emerging visions were first presented to the Task Force in
35 August 2007, and contributed greatly to forming the vision. Many of the ideas presented in the
36 Stakeholder Coordination Group will be more fully addressed during the strategic planning
37 process.

38
39 Two Science Advisors, Dr. Michael Healey and Dr. Jeffrey Mount, consult with the Task Force,
40 the Delta Vision Committee and the Stakeholder Coordination Group and advise about the sci-
41 entific issues regarding the Delta. The Science Advisors formed an assessment team to review
42 the scientific and technical issues found in the Stakeholder Coordination Group's two emerging
43 visions and the eight external visions submitted by the general public.
44
45

1 **Part III – What the Delta means to California**

2
3 The Sacramento – San Joaquin Delta is a regional, state, and national treasure. It is a part of
4 the water supply system for the majority of California’s people and supports billions of dollars
5 of annual economic activity, offers habitat or migration passage to dozens of critically important
6 species, and is the location of housing, jobs and recreation to millions. Put simply, without the
7 Delta and its services, modern California as we know it could not exist.

8
9 California’s Delta lies at the center of a complex statewide water system that combines the
10 massive engineered state and federal water projects with a diverse range of local water man-
11 agement activities. But despite its importance to this system, uses of the Delta are not gov-
12 erned effectively. There are hundreds of jurisdictions and agencies that deeply affect the
13 Delta’s future, each pursuing its mission. However, there is no coherent vision for the future of
14 the Delta that effectively addresses the increasing threats and only weak ways to organize the
15 existing agencies and jurisdictions toward broad purposes.

16
17 One consequence is that the state and federal water projects increasingly lack the ability to
18 guarantee water deliveries to their contractors, due to environmental conditions that the Delta’s
19 current institutional structure cannot manage or respond to effectively. There are also numer-
20 ous legal, regulatory, and economic incentives to misuse or overuse Delta water that ensure a
21 constant over-subscription of the resource.

22
23 The Delta also is critically threatened by both short-term and long-term forces of change. Re-
24 cent precipitous declines in fish populations and continuous introductions of non-native species
25 have spotlighted the rapidly deteriorating health of the ecosystem, once among the most pro-
26 ductive and diverse in North America. These conditions have led to water supply interruptions
27 and new restrictions on the operation of the State Water Project and the Central Valley Project.
28 These restrictions are likely to endure for the foreseeable future, and will have major economic
29 consequences for the entire state.

30
31 In addition, all uses of Delta water and land rely on the 1300 miles of levees that define the
32 Delta landform and water conveyance system. As these have aged, they have become vul-
33 nerable to failure from earthquakes, floods, and structural deterioration. A multiple levee fail-
34 ure event in the Delta could flood dozens of islands, badly damage the ecosystem, and entirely
35 halt water exports from the Delta for years.

36
37 Finally, California’s Delta is an extraordinarily complex system that in many ways defies com-
38 prehensive understanding. Assessing the effects of any given action on the Delta’s hydrology,
39 ecosystem, and water quality requires modeling the interaction of dozens of variables, many of
40 which are only partially understood individually. While basic research has yielded valuable
41 new knowledge and more discoveries will continue; a profound uncertainty about how the
42 Delta works is likely to continue for the foreseeable future.

43
44 Overall, the current state of the Delta is unsustainable in both the short and long-terms. Given
45 the Delta’s unique history and topography, however, it is impossible to return the system to
46 anything closely resembling its native condition. A vision for a substantially new Delta, and a

1 substantially new approach to managing the Delta for its ecosystem and water system values,
 2 are required to ensure that this precious resource continues to enrich and enhance the state of
 3 California.

4
 5 Re-designing a system as vital and as complex as the Delta is a major challenge for California.
 6 The stakes in the Delta are so high that failure to accept this challenge is not an option. Cali-
 7 fornia has led the nation and the world many times in its foresight in environmental manage-
 8 ment, and must do so again now. Nothing less than the future of California's Delta, and a
 9 large portion of the state's economy, is at stake.

10 11 **Values and principles in managing the Delta**

12
 13 The Delta Vision process was created to “develop a durable vision for sustainable manage-
 14 ment of the Delta” that can “restore and maintain identified functions and values that are de-
 15 termined to be important to the environmental quality of the Delta and the economic and social
 16 well being of the people of the state.”

17
 18 The Task Force identifies **the water system and the ecosystem of the Delta as co-equal**
 19 **values** and functions that must be preserved on equal footing. California cannot sacrifice ei-
 20 ther the unique ecosystem of the Delta or the water supply that is derived from it. Recent
 21 events have suggested that, far from being mutually exclusive goals protecting the water sup-
 22 ply and ecosystem may only be achievable in tandem.

23
 24 In addition, **the Delta is a unique place** that has value in its own right. It is not solely an infra-
 25 structure system or an ecosystem. The Delta is a place of great beauty and for generations it
 26 has been a great natural resource and destination and will remain so. It has a regional econ-
 27 omy and a regional culture as old as any in California, consisting of communities, farming and
 28 recreational activities. Land use and governance considerations will be central to securing
 29 these values.

30
 31 California's Delta is and will remain a powerful mixture of natural and human forces, and **hu-**
 32 **manity must learn to work with nature to achieve desired goals in the Delta..** While hu-
 33 man designs and engineering will support enhanced ecosystem function, much of that regen-
 34 eration will occur by natural processes. Appropriately designed human actions can harness
 35 Tules to rebuild subsided islands or tidal action to recreate marshes. And while the Delta is
 36 economically indispensable to the people of California, it can only be sustained by healthy eco-
 37 logical processes. The state must seek a new balance that neither prioritizes human engineer-
 38 ing over the ecosystem, nor abandons the Delta. Instead, the state must strive to blend natu-
 39 ral and human energies in a productive new synthesis that restores and sustains ecological
 40 and human values equally.

41
 42 Over the coming decades, California's Delta will be subject to powerful external sources of
 43 change. The physical configuration of the Delta as it exists today is not stable. But achieving
 44 sustainable management has less to do with armoring a static Delta against these drivers of
 45 change than with creating a physical and institutional form that will allow the system as a whole
 46 – and the critical economic and ecological services it provides – to survive what could other-

1 wise be catastrophic shocks. We must **design for resiliency**, both in the Delta and in the
2 California water system as a whole.

3
4 The Delta also requires actions that build a margin of safety for key ecological, water supply
5 and public safety functions in the short term. Any vision must meet this need while also em-
6 bodying the principles of building a resilient Delta over the long term.

9 **A vision for California's Delta**

10
11 The essence of the Delta problem is that there is extraordinary value, extraordinary risk, and
12 extraordinary uncertainty, all in the same place. Despite numerous past studies, prevailing un-
13 certainty is still the most accurate general characterization of our understanding of the Delta
14 today. Equally significant, that uncertainty will likely not be eradicated in a system as complex
15 as the Delta in the near-term.

16
17 Far from being a prescription for paralysis, however this problem has very specific implications
18 for future Delta management. Managing a valuable resource of any kind under conditions of
19 uncertainty calls for common sense wisdom – spread risks, create redundancies where possi-
20 ble, work in reversible steps, and learn from experience. The state must act decisively and de-
21 liberatively to reduce known threats, starting with the largest and most immediate. The state
22 must adopt a stewardship philosophy that results in a resilient Delta environment and a resil-
23 ient state water supply system.

24
25 Fragile systems are those in which much relies on a few brittle parts, an accurate description
26 of the Delta ecosystem and water conveyance systems today. Resilient systems are those
27 with multiple mutually supporting parts, functional redundancies, and the capacity for gradual
28 (not catastrophic) change in response to new conditions. That is the future vision which must
29 be achieved. The Delta's large physical size and complex array of water channels are assets
30 for achieving resiliency, since they can distribute functions and risks over a large, diverse area.

31
32 The principle of resilience also applies more broadly to the state of California's water system.
33 The Delta's watershed is almost half the land area of California and other large populations
34 outside of the watershed are serviced by exported Delta water. The amounts and characteris-
35 tics of the water flowing through the Delta are profoundly shaped by the land uses, technolo-
36 gies, and human behaviors that occur in both of these areas. Figure 3 shows the Delta water-
37 shed boundaries on a map of California. The Delta watershed represents nearly 40 percent of
38 the state and receives nearly half of the precipitation for the state.

39
40 Because of California's Mediterranean climate, the key challenge for the statewide water sys-
41 tem has been to shift water from wet years, wet seasons, and wet locations to drier times and
42 places. The Delta Watershed is replete with ditches, dams, canals and levees intended to
43 manage floods and shift water to other locations regardless of nature's timing. The State Water
44 Project and federal Central Valley Project are the largest human engineered systems in the
45 Delta watershed, including massive storage and large canal systems and pumps. The State
46 Water Project and the Central Valley Project use the Delta as a hub of their water conveyance

1 system; the Delta also plays that role in many local water systems while other users divert di-
2 rectly from the Delta's waterways.

3
4 For California's Delta to become resilient to the threats of sea level rise, earthquakes or sunny
5 day levee failures, the entire state water system must become more resilient. This means that
6 the state as a whole must reduce its reliance on the Delta, both as a water supply and as a
7 physical conveyance system. There is too much reliance on a single fragile linchpin that is it-
8 self too vulnerable. This reliance is most acute at the times the Delta itself can least afford it,
9 with dry year demand for Delta water often exceeding wet year demand. The Delta must re-
10 main an important feature for providing water to the state, but it must not be the sole transfer
11 point for those conveyance systems.

12
13 Reducing reliance on the Delta means building greater regional water self-sufficiency through-
14 out California. Each region—and the state as a whole—will become more resilient to future
15 hydrological and ecological conditions if they import less water. Water use efficiency, ground-
16 water recharge, floodplain and local storage, recycling, desalinization, demand management
17 programs, and water-conscious land use planning will all be key tools for increasing self-
18 sufficiency, and must be pursued as appropriate in each particular region.

19
20 The resilient California Delta treats the water supply and its ecosystem as co-equal values,
21 each central to the future of the region and the state. In order for both to thrive, however, a
22 greater physical or operational separation of the two must be achieved. The aquatic ecosys-
23 tem cannot recover to a state of enduring health if it remains vulnerable to the operations of
24 the water conveyance system. Likewise, water supply reliability cannot be achieved if species
25 endangerments and other ecological problems continually disrupt deliveries.

26
27 Achieving this separation must proceed in a staged, transparent, and reversible manner, so
28 the effects of any action upon both the ecosystem and the water supply can be fully evaluated
29 as implementation proceeds. A series of performance standards, widely agreed upon by
30 stakeholders, must be the basis for these evaluations.

31
32 Once this separation is achieved, management of both the water system and the ecosystem
33 must proceed in an adaptive manner. In a system as dynamic as the Delta, and with climatic
34 and other conditions changing in unpredictable ways, it is essential that management flexibility
35 be preserved and exercised. This may mean creating multiple pathways for water conveyance
36 so critical water supplies cannot be interrupted completely by levee failures, salinity intrusion,
37 or other sudden changes. All water conveyance systems must be insulated or fortified against
38 stressors to the greatest cost-effective extent, and must be managed or designed to be quickly
39 recoverable in the event of a major disaster.

Figure 3. The Delta watershed covers much of California



1
2 Multiple migration routes for anadromous fish on each major river systems are desirable to
3 help ensure their existence. Other key habitat types, such as tidal wetlands, seasonal flood-
4 plains, and seasonal non-tidal wetlands, must be in multiple locations around the region, ide-
5 ally on at least two different river systems, so a localized disaster (such as a levee failure)
6 cannot wipe out an entire population. Habitats must be linked in a coherent network allowing
7 uninhibited movement of key species throughout the region; over the long term entire habitats
8 may shift in response to changing climatic and topographic conditions.
9

10 The Delta's land use pattern should also reflect the principle of resilience. Housing develop-
11 ment must be kept out of flood-prone areas, including all areas below sea level and in deep
12 floodplains, whether within or outside of the existing primary zone. The landscapes of these
13 areas must continue to be dominated by agriculture, wildlife habitat, and recreation, with mutu-
14 ally beneficial mixtures of these wherever possible. Specialized forms of agriculture that are
15 particularly well suited to the Delta, such as subsidence-reversing crops, carbon-sequestering
16 crops, and wildlife-friendly farming practices, must be encouraged.
17

18 Levees protecting critical islands, channels, and infrastructure systems must be reconstructed
19 to be efficiently and effectively repairable after any potential disaster, including an earthquake.
20 The materials necessary to such repairs must be pre-positioned in several appropriate loca-
21 tions around the Delta to expedite emergency response.
22

23 **Governance**

24

25 No improvement in the Delta ecosystem, and no protection of existing exported water, is pos-
26 sible without new, effective governance. There are at least 220 governmental agencies with
27 some authority for aspects of the Delta. We know of no individual who defends the current
28 system of governance. Instead, almost everyone insists that a 'new governance structure' is
29 needed. We agree, and will make our recommendations later. Pending that, however, the fu-
30 ture governance system for California's Delta must be granted wide authority and have as its
31 focus the achievement of the dual priorities we have identified: a protected and improved
32 Delta ecosystem, and providing a reasonable amount of water for human purposes.
33
34

35 An effective governance system must do the following:

- 36 • Make progress on the two critical values of ecosystem function and water provision
- 37 while incorporating the other values society seeks through the Delta.
- 38 • Have the authority to shape land forms and land uses within the Delta and surrounding
- 39 lands, consistent with this vision.
- 40 • Manage the operations of Delta-relevant water systems and ecosystem protection and
- 41 improvement projects, including the authority to adjust rapidly to achieve the stated
- 42 goals.
- 43 • Shape decisions in the Delta watershed which affect Delta water flows (quantity, timing,
- 44 quality).

- Establish policies which improve water uses across California, including conservation, system efficiencies and improvements, which lead to regional self sufficiency, and permit the reasonable exchange of water among users.

The governance of these five areas need not be assigned to a single authority. However, all must be harnessed together to succeed. This can be achieved by identifying starting principles and using the full range of policy instruments.

These starting principles can inform the design of any governance system:

- Has needed authority
- Can make needed decisions balancing critical values
- Can ensure implementation of its decisions, including control of needed finances and sufficient legal authority
- Is responsive to society and major constituencies
- Can change over time to better meet its goals

Further development of proposals on governance will occur as the vision evolves and more detailed work will occur during the strategic planning stage of Delta Vision in 2008.

Addressing issues identified in Executive Order S-17-06

The Delta Vision Blue Ribbon Task Force identified ecosystem function and water provision as the two critical values to be met by public policies in the Delta, meeting the requirement of E0 S-17-06 “to develop a durable vision for sustainable management of the Delta...managing the Delta over the long term....priority functions and values will be identified.”

Executive Order S-17-06 also identifies nine factors to be addressed. Those factors are best considered in how they will contribute to, and be affected by, the two high priority values.

Many possible actions for these factors have been identified by the Stakeholder Coordination Group, visions submitted by individuals and groups, and developed in concurrent Delta planning actions (e.g., Bay-Delta Conservation Plan). Those ideas will inform development of this section of the vision and the strategic plan in 2008.